

ABSTRACT OF THE DISCLOSURE

A device for performing numerical value conversion of a digital input value in a first unit to a second, natural unit where the digital input value is a digitized value of a first measurement parameter includes a look-up table storing an array of coefficients for performing the numerical value conversion for multiple measurement parameters. The look-up table is indexed using a first parameter indicative of the first measurement parameter to provide a selected coefficient. The device further includes an arithmetic logic unit (ALU) receiving the digital input value and the selected coefficient and performing the numerical value conversion based on a first equation and the selected coefficient to compute a digital output value. The device also includes a saturation-limit circuit coupled to receive the digital output value from the arithmetic logic unit and provide a predetermined output value when the digital output value exceeds a predetermined maximum value.